

Europäisches Patentamt

European Patent Office

Office européen des brevets



EP 0 975 036 A1 (11)

(12)

EUROPEAN PATENT APPLICATION

published in accordance with Art. 158(3) EPC

(43) Date of publication: 26.01.2000 Bulletin 2000/04

(21) Application number: 98900233.2

(22) Date of filing: 12.01.1998

(51) Int. Cl.7: H01M 4/52, H01M 4/32, H01M 10/30, H01M 10/34

(86) International application number: PCT/JP98/00098

(87) International publication number: WO 98/34290 (06.08.1998 Gazette 1998/31)

(84) Designated Contracting States: BE DE FR GB

(30) Priority: 30.01.1997 JP 3312697 27.08.1997 JP 24777897 24.09.1997 JP 27811897

(71) Applicant: SANYO ELECTRIC Co., Ltd. Moriguchi-shi, Osaka 570 (JP)

(72) Inventors:

YANO, Mutsumi Hirakata-shi, Osaka 573 (JP)

· SUZUKI, Syuichi. Daini-tamiyaryo Hirakata-shi, Osaka 573 (JP) TOKUDA, Mitsunori Osaka-shi, Osaka 546 (JP)

 NOGAMI, Mitsuzou Takatsuki-shi, Osaka 569 (JP)

 KIMOTO, Mamoru Hirakata-shi, Osaka 573 (JP)

· FUJITANI, Shin Hirakata-shi, Osaka 573 (JP)

· NISHIO, Koji Hirakata-shi, Osaka 573 (JP)

(74) Representative: **VOSSIUS & PARTNER** Siebertstrasse 4 81675 München (DE)

(54)**ENCLOSED ALKALI STORAGE BATTERY**

A sealed alkaline storage battery using, as a positive electrode active material, nickel oxyhydroxide including Mn as a solid-solution element and having a y ratio of 65 through 100%; a sealed alkaline storage battery using, as a positive electrode active material, nickel oxyhydroxide including as an additive or coated with a rare earth element and/or a rare earth compound in a ratio measured based on the rare earth element of 0.05 through 5 wt%; and a sealed alkaline storage battery including, as a positive electrode active material, nickel oxyhydroxide having a half-width of a peak in a lattice plane (003) in an X-ray diffraction pattern of 0.8° or more. The pressure within the battery is not largely increased for a long period of charge-discharge cycles, and hence, the electrolyte hardly leaks.

